INU-15-022 Questions

1. Q. Section IV. There are a number of requirements levied on the first display system (dome) that do not appear in the list of requirements for the second display system (wall). These include floor loading, cockpit egress, cockpit removal and hazard conditions. Are these not requirements for the second visual system?
   A. These do not apply to the wall mounted system. We assume a flat screen on a wall and projectors mounted to the ceiling. Certainly the ceiling projectors should be secured and out of head impact as pilots enter and exit.
2. Q. Section IV. The dome display system specifies only optical blend and warp, while the wall display system specifies the use of image processors for blend and warp. Is the intent that 1 display system uses a completely optical blend and warp solution (no electronic) while the second uses an all electronic blend and warp solution (no optical)?
   A. The wall system projectors will be driven by our own IG, which currently needs external hardware to do the blend and warp… so for the wall system, an external solution (blender) will be required. For the dome system, use whatever method for bending you require to deliver the turn-key solution.
3. Q. Section IV. Is there any requirement for Auto-Align of projectors on either display system?
   A. No, and it was not specified in the SOW. But if you can offer auto-align as part of your proposal, I am sure our technicians would appreciate the feature.
4. Q. Section IV. How many technicians will receive the "System Training?
   A. A minimum of 2.
5. Q. Section IV, Image Generator. The requirement for the IG is that it must interface with the in-house simulator. What type of interface does the existing simulator use? Is it CIGI compliant?
   A. If your delivered product is CIGI compliant and that interface is well documented, we will do the work on our end to interface to it. All we ask is a well-documented interface to the IG is provided so that we may drive it with our sim data.
6. Q. Section IV, Image Generator. The requirement for the IG database is to contain a worldwide terrain database, but does not specify a resolution. What resolution is required for the worldwide terrain database?

A. A lower res world image database of 15m and 1km elevation data is acceptable. Of course we will need the ability to import higher resolution imagery and terrain data as needed for any specific region of interest. At this time we have high res imagery of the Edwards area that we purchased, so we would want the ability to incorporate that, as well as the ability to add areas around the globe as necessary in the future.

7. Q. Section IV, Image Generator. The requirements for the airfields are only that there are 10. In what geographical area are the airfields desired or required? Are there any particular airfields that are desired or required?
   A. Edwards is desired, but as mentioned in Q6, we have the data for Edwards, so that would just need to be implemented. Other airports would be TBD, with the understanding that these airports would be from a catalog that you have previously developed.
8. Q. Section IV, Image Generator. The requirement for the airfields does not specify any content requirements for the airfields. What type of content and/or fidelity should be available at the airfields? (e.g., runways, taxiways, navaids, elevation resolution, hangars, terminals, lights, vegetation, static vehicles, etc.)
   A. We have no hard requirements for this. Assume 9 of the ten airports are from your catalog, and Edwards will be developed with the main runways, aux runways, taxiways, navaids, and high elevation resolution. Minimal hangars vegetation, static vehicles. We are mainly interested in the runway realism, building detail would be a "nice to have"
9. Q. Section IV, Image Generator. The requirement for the IG to be able to import custom 3D models does not specify what format those models must be in. Is the contractor allowed to specify the format for the 3D models to be in accordance with the capabilities in the IG?
   A. Yes, as long as it is an industry standard format.
10. Q. Are there any existing 3D models the customer wants imported by the contractor prior to delivery?
    A. No, but provide us the way and format and we will bring our own models in… should be part of the training provided.
11. Q. Section IV, Image Generator. Are there any requirements to support sensors (e.g., NVG, FLIR, etc.)? Is there a requirement to be able to support sensors in the future?
    A. No Sensors.
12. Q. Section IV, Flat Display System. What is the application of the display system? What type of mission support occurs on the device?
    A. Control system research. Generally transport class aircraft.

13. Q. Section IV, Flat Display System. Is there a display system performance (system resolution, luminance, contrast, etc.) specification available for design and ATP?
    A. Nothing other than what appears in the SOW.
14. Q. Section IV, Flat Display System. Will the system be used for night time training/visualization?
    A. No
15. Q. Section IV, Flat Display System. Will this be for a single eye-point with the image content warped from that single eye-point or for multiple eye-points to be used for visualization with multiple viewers looking at the display from different points?
    A. Single eye point.
16. Q. Section IV, Flat Display System. Is the specified screen size of 9ft x 28ft an absolute/fixed requirement or can the screen size be designed to optimize cost performance accounting for the simulation room and cockpit?
    A. Please optimize.
17. Q. Section IV, Flat Display System. Similar to the question above, is the listed resolution of 2560x1600 an absolute requirement? This is relevant as the specific resolution is not optimal for displaying on the size screen specified.
    A. Again, optimize accordingly. Provide reasoning for going with a different resolution in your proposal.
18. Q. Section VI, Flat Display System. Will delivery of a flexible screen material be acceptable?
    A. Yes
19. Q. Section IV, Flat Display System. What is the budget for this display system?
    A. Information not to be released.
20. Q. Section IV, Dome/Spherical Display System. What is the application of the display system? What type of mission support occurs on the device?
    A. As I mentioned at site survey. Generic capability supporting a wide range of aircraft and wide range of missions. No pilot training, only engineering simulations, and mission training.
21. Q. Section IV, Dome/Spherical Display System. Is there a display system performance (system resolution, luminance, contrast, etc.) specification available for design and ATP?
    A. None other than what is specified in SOW.
22. Q. Section IV, Dome/Spherical Display System. Will the system be used for night time simulation with or without Night Vision Goggles?
    A. No
23. Q. Section IV, Dome/Spherical Display System. Does the screen have to be spherical or can a cylindrical screen be used to provide the required field of view and performance?

A. We have one cylindrical system in operation currently, so we would prefer a spherical system for this solution.

24. Q. Section IV, Dome/Spherical Display System. What is the budget for this display system?
    A. Information not to be released.
25. Q. Section IV. The requirements for one of the systems indicate a projector lumen value of 2500 lumens. Is this value accurate?
    A. It is a target minimum brightness.
26. Q. Section IV, Dome/Spherical Display System. Will a 9 ft radius dome be acceptable for delivery as long as it fits inside the room?
    A. Yes, but there must be access to get behind the dome.
27. A. Section IV, Dome/Spherical Display System. Can 4 feet high be confirmed as the desired eye point location?
    A. Yes, we realize this places the "pilot" most likely sitting on the floor. Trying to avoid raising the ceiling if at all possible, so the cockpit will be at floor level.
28. Q. Section V. The requirement states that delivery of the visual systems to the onsite receiving dock is 90 days, but does not specify a period of performance for the installation and test of the display systems. Is there any requirement for these items, or will those schedules be determined after award as mutually acceptable dates?
    A. Yes we will work with you on those dates.
29. Is dismantling and disposal of existing equipment required?
    A. No
30. Q. If auto-calibration is not required or purchased, can auto-calibration cameras be used to setup the display systems and removed after completion of installation?
    A. Yes
31. Q. Is there any technical proposal requirement….or just a price?
    A. Please see MOD to current solicitation.
32. Q. Are there any documented evaluation criteria (e.g., best value)?
    A. Please see MOD to current solicitation.
33. Q. What is the anticipated award date?
    A. This is hard to determine at this time. Dependent on too many factors.

RE: Statement of Work for Simulation Display, IV. Specific Task Requirements, Section 1

- Cockpit

34. Q. Confirm that this is only single seat cockpit?
    A. Yes
35. Q. Please specify the Maximum height above eyepoint?
    A. 6 feet. IE ceiling height. Desired.
36. Q. Please specify the Maximum Length in front of eyepoint?
    A. 12 feet. Desired.

37. Q. Are there any restrictions for sanding, painting?
    A. Provide a requirement for ventilation as part of your proposal. If our facilities engineers cannot provide, assume you will have to rent the equipment necessary to run ventilation ducts to the outside of the building, as well as plastic barriers to prevent the flow of particles to adjacent equipment, and provide your assembly team with the appropriate PPE.
38. Q. Do you require full light tight area to
    A. None
39. Q. Do you have a drawing of the ceiling construction (ceiling above tiles), pictures also would help.
    A. Don't have drawings. Pictures and dimensions can be provided upon request after award.

RE: RE: Statement of Work for Simulation Display, IV. Specific Task Requirements, Section 2

40. Q. There's an alarm light on the wall where the screen will be installed. This will be covered by the screen. Is this an issue? Who is responsible to move the light?
    A. We will take care of it.
41. Q. Who is responsible to provide power to projector (run cables).
    A. We will.
42. Q. Confirm video input to projection system is DVI-D.
    A. Yes.
43. Q. Confirm video cables are buyer's responsibility, if vendor supplies these please acknowledge.
    A. Vendor should supply DVI-D optical cables min 25m long.
44. Q. Confirm that Cockpit/Design Eye Point (DEP) seen in lab will be the same but can be moved to optimize viewing location
    A. Height of DEP will be the same for the wall system but could be moved on the ground plane to optimize.
45. Q. Do you have a drawing of the ceiling construction (ceiling above tiles), pictures also would help.
    A. See 38.
46. Q. Although the wall is not structural, can the new screen be anchored to the wall in the same manner as the current screen?
    A. Yes, the screen could be anchored to the wall.